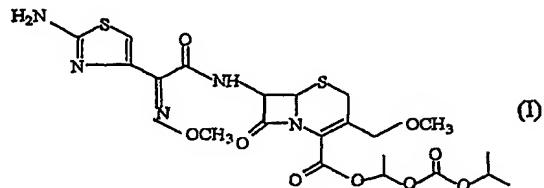


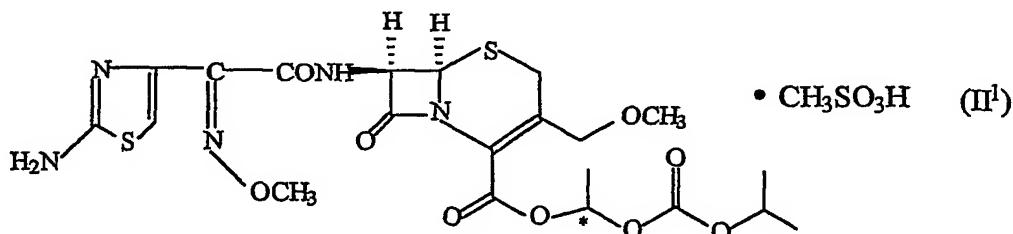
**Claims:**

1. A process for obtaining cefpodoxime proxetil of formula (I), of high purity conforming to pharmacopoeial specification comprising ;



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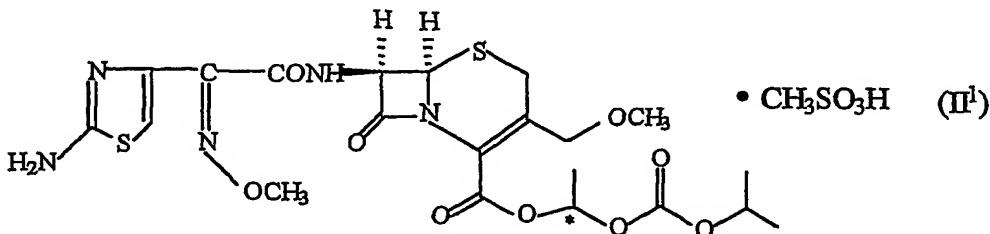
addition of a solution of methanesulfonic acid in water to a solution of impure cefpodoxime proxetil of formula (I) in an organic solvent to form the corresponding cefpodoxime proxetil methanesulfonate of formula (II<sup>1</sup>),



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followed by addition of a co-solvent and separation of the aqueous phase containing cefpodoxime proxetil methanesulfonate of formula (II<sup>1</sup>) having a diastereomeric ratio of (R/ R+S) between 0.5 to 0.6 and subsequent neutralization of the methanesulfonate salt (II<sup>1</sup>) with a base to give cefpodoxime proxetil (I) free of impurities and having a diastereomeric ratio of (R/ R+S) between 0.5 to 0.6, or,

15 addition of impure cefpodoxime proxetil of formula (I) to a solution of methanesulfonic acid in water to form the corresponding solution of cefpodoxime proxetil methanesulfonate of formula (II<sup>1</sup>) in water,



followed by sequential addition of a first organic solvent and a co-solvent and separation of the aqueous phase containing cefpodoxime proxetil methanesulfonate of formula (II<sup>1</sup>) having a diastereomeric ratio of (R/ R+S) between 0.5 to 0.6 and subsequent neutralization of the methanesulfonate salt (II<sup>1</sup>) with a base to give cefpodoxime proxetil

5 (I) free of impurities and having a diastereomeric ratio of (R/ R+S) between 0.5 to 0.6.

2. A process as claimed in claim 1 wherein said pure cefpodoxime proxetil is dissolved in a water-miscible organic solvent, followed by optional treatment of the solution with activated charcoal, followed by filtration through a filter aid to remove  
10 charcoal and suspended particles and addition of water to the filtrate to precipitate out cefpodoxime proxetil (I) free of impurities and having a diastereomeric ratio of (R/ R+S) between 0.5 to 0.6, which can be isolated by filtration.

15 3 A process as claimed in claim 1 or 2, wherein said first organic solvent is a water-immiscible solvent.

4. A process as claimed in Claim 3, wherein the water-immiscible organic solvent is selected from methyl acetate, ethyl acetate, butyl acetate, methyl ethyl ketone and methyl iso-butyl ketone.

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5 A process as claimed in any preceding claim, wherein the co-solvent is selected from an aliphatic hydrocarbon, aromatic hydrocarbon and an ether.

25 6. A process as claimed in Claim 5 wherein the aliphatic hydrocarbon is selected from hexane, heptane, cyclopentane and cyclohexane.

7. A process as claimed in claim 5, wherein the aromatic hydrocarbon is selected from toluene and xylene.

30 8. A process as claimed in claim 5, wherein the ether is diethyl ether or diisopropyl ether.

9. A process as claimed in any preceding claim wherein said methanesulfonic acid is employed in a molar ratio of between 1.0 to 2.0 mole equivalent of cefpodoxime proxetil, preferably between 1.5 to 2.0 mole equivalent.

5 10 A process as claimed in any preceding claim, wherein the diastereomeric ratio of (R/R+S) the methanesulfonate salt of formula (II<sup>1</sup>) obtained after separation of the organic and aqueous phases is between 0.5 to 0.6.

11. A process as claimed in any preceding claim wherein the base is an inorganic  
10 base.

12. A process as claimed in claim 11, wherein the inorganic base is selected from sodium hydroxide, potassium hydroxide, sodium carbonate, potassium carbonate, sodium hydrogen carbonate and potassium hydrogen carbonate.

15 13. A process as claimed in any preceding claim, wherein the pH of the solution after neutralization with the base is 7.0

14. A process as claimed in any preceding claim , wherein the pure cefpodoxime  
20 proxetil of formula (I) after neutralization with a base is isolated by filtration.

15. A process as claimed in any preceding claim wherein the diastereomeric ratio of (R/R+S) pure cefpodoxime proxetil of formula (I) is between 0.5 to 0.6.

25 16. A process as claimed in any one of claims 3 to 15 , wherein the water-miscible organic solvent is selected from lower alcohols such as methanol, ethanol and isopropanol; lower alkyl ketones such as acetone; lower alkyl glycals ethers such as methyl glycol; dipolar aprotic solvents such as N, N-dimethylacetamide and dimethyl 30 sulfoxide and cyclic ethers such as tetrahydrofuran and dioxane

17. A process as claimed in any preceding claim , wherein the diastereomeric ratio of (R/R+S) pure cefpodoxime proxetil of formula (I) is between 0.5 to 0.6.